



TITLE:

Studies on Application of Ketone Resins. (VIII) : Application of Acetone Formalin Resin as Adhesives. (7)

AUTHOR(S):

Kozai, Yasuaki

CITATION:

Kozai, Yasuaki. Studies on Application of Ketone Resins. (VIII) : Application of Acetone Formalin Resin as Adhesives. (7). 京都大学化学研究所報告 1951, 25: 75-75

ISSUE DATE:

1951-09-10

URL:

<http://hdl.handle.net/2433/74261>

RIGHT:

One of the experiments was carried out as follows. A 100ml-autoclave was charged with 20g phthalimide, 40g xylene and 5g $(\text{CH}_3\text{COO})_2\text{Cd}$ and C_2H_2 was pressed in to 12kg/cm². After shaking for 2 hrs. at about 200°, the pressure fell from 57 to 50kg/cm². The reaction mixture was filtered from catalyst and unchanged phthalimide, and was washed with xylene. N-vinyl phthalimide was obtained on the steam-distillation of the filtrate at slightly reduced pressure; yield 3.0g (50%). It melts at 85–86° and is polymerized with benzoylperoxide. A mixed melting point with N-vinyl phthalimide, from β -acetoxyethylphthalimide (m.p. 85–86°) showed no depression.

The new method gives as much yield as the pyrolysis method, but may be of great value on account of the cheapness of the reagents. The authors wish to thank Yamada of the Osaka Industrial Research Institute for the sample of N-vinyl phthalimide from β -acetoxyethylphthalimide.

31. Studies on Application of Ketone Resins. (VIII)

Application of Acetone Formalin Resin as Adhesives. (7)

Yasuaki Kōzai

(Nodzu Laboratory)

This report deals with the experiments of the Acetone Formalin Resin as an adhesive for the wood. Conditions the application were similar to those described in the previous paper, (R. Nodzu, R. Gotō and Y. Kōzai: "Wood Research" Bulletin of The Wood Research Institute, Kyoto University, 4 (1950) 50; This Bulletin, 23 (1950)) except the method of heating which was carried out by a radio-heater (wave-length 6 m, power 300–500 W).

1) Examples of the results:

Pressure (Kg/cm ²)	Headening reagent	Radio-heating hour (Kg/cm ²)	Adhesive strength (Kg/cm ²)	Wet adhesive strength (Kg/cm ²)
17	NaOH	1–3	120–130	40–45
	Ca(OH) ₂	2–5	130–150	45–50
0	NaOH	2–3	50–60	15–20
	Ca(OH) ₂	0.3–0.5	5–10	0

Test piece: BUNA (3×2×1cm)

2) The addition (1–2%) of wood powder to the resin, gives a good effect.